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Berlin eyes Kazakh Druzhba supplies

Plans to supply Kazakh crude to the Schwedt refinery in Germany could run into political opposition from Moscow

Germany wants to secure Kazakh crude delivered through Russia for the 226,000 b/d Schwedt refinery in eastern Germany. These shipments could help replace Russian crude in the new year but only if Moscow agrees.

Kazakh state-controlled Kazmunaigaz (KMG) is considering a test shipment of crude to Germany in January, chairman Magzum Mirzagaliyev told German politicians on 21 December. Schwedt has started negotiations with Kazakh crude suppliers, Germany's economic affairs and climate protection ministry says.

Kazakh crude can be delivered to Germany through Russia using the Druzhba pipeline system, which serves Schwedt and the 236,000 b/d Leuna refinery, also in the east of the country. But contractual and technical problems must be resolved before regular Kazakh crude supplies are possible, Mirzagaliyev says. Germany has said it will end pipeline imports of Russian crude from 1 January.

Transneft president Nikolai Tokarev said on 20 December that it is technically possible to partly replace some Russian crude supplied through Druzhba but hinted at potential obstacles. "If they [Germany] don't want to receive Russian crude from this pipeline, why would we contribute to support the economy of an unfriendly country? But this is politics and not for us to decide," he said.

Kazakhstan has not approached Transneft about potential crude supplies to Germany and any deal can be made only by Russia's energy ministry, Transneft spokesman Igor Demin told state-owned news agency Tass on 20 December. But Russia's 19mn-20mn t/yr (444,000 b/d) exports to Germany cannot be fully replaced with Kazakh crude, he said — Kazakh supply is limited to 3mn-5mn t/yr.

Germany insists it will take only Kazakh crude though Druzhba next year — Tokarev said on 20 December that Transneft has received requests from Germany and Poland for supplies, although "they announced that they would not take oil from Russia from 1 January". He told state-owned Rossiya 1 television that Germany has "submitted a request for the first quarter" and that "Polish consumers" have asked for 3mn t (60,000 b/d) in 2023 and 360,000t in December.

False reports

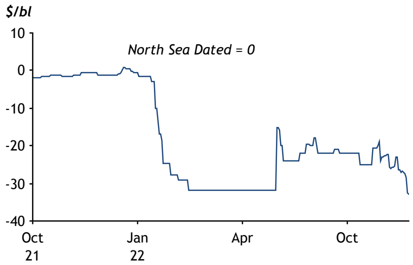
Germany's economic affairs and climate protection ministry insists that "reports that Germany had ordered Russian crude are false". The operator of Schwedt "reserved capacity for Kazakh oil in the [Druzhba] pipeline system as part of contract negotiations" with Kazakh suppliers, the ministry says.

Schwedt also plans to take seaborne supplies of non-Russian crude at the Baltic ports of Rostock and Gdansk, in Germany and Poland, respectively, to replace Russian supplies, the ministry says. This should allow the plant to run at 70pc of capacity. The Schwedt and Leuna refineries in eastern Germany "will no longer order Russian crude in the new year", the ministry says.

Both previously relied on Druzhba Urals. Rosneft has a 54.17pc shareholding in Schwedt, which Berlin placed under trust administration in September.

The Polish government has indicated that Poland will halt Druzhba imports next year. But state-controlled PKN Orlen wants to honour its 2.4mn t/yr term contract with Tatneft, which runs until 2024, and 300,000 t/month deal with Rosneft that expires at the end of February.

Urals Med vs North Sea Dated



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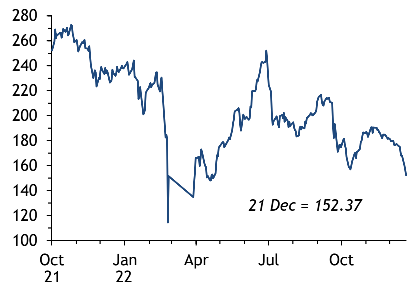

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EDITORIAL

Life in wartime

The Kremlin miscalculated on all fronts when it launched its disastrous war in Ukraine

Russia's invasion of Ukraine brought war back to Europe this year, creating a humanitarian catastrophe and leaving Moscow increasingly isolated — politically and economically.

The war in Ukraine has resulted in tens of thousands of deaths, displaced as many as 14mn people and caused untold destruction. It has also nearly severed completely a decades-long, mutually beneficial energy partnership between Russia and Europe, while spreading uncertainty across global markets.

Within days of the 24 February invasion, most of the international majors operational in Russia had announced plans to depart, walking away from billions of dollars of investment in oil and gas projects, stretching back over 20 years in some cases. Moscow has done everything it can to obstruct their departure, but the story of large-scale western energy investment in Russia is over for the foreseeable future.

The progress of the war suggests that in the run-up to the invasion, President Vladimir Putin was woefully misinformed about the capabilities of Russia's military and Ukraine's capacity to resist it. And he also appears to have massively underestimated the west's willingness to support Kyiv, as well as miscalculating Europe's vulnerability to pressure over energy supplies.

Apparently convinced that European prosperity depends on access to Russian gas, Putin seems to have assumed that the threat of losing it would be enough to deter EU countries from supporting Kyiv and imposing sanctions on Russia. It did not and Europe is learning to get by on Russia gas supplies that are a fraction of pre-war exports and will probably fall further.

The EU ban on Russian seaborne crude imports has been in force since 5 December, with a products embargo to follow from 5 February. Russia has managed to reroute significant supplies of crude to India, as well as China — at substantial discounts to prevailing global prices — as European demand waned from March and before the EU ban this month. But trade flows with India have been intermittent in the past, with profitability dependent on the vagaries of the long-haul freight market and the ebb and flow of competing crudes.

Finding new markets for oil products will be harder than redirecting crude, and rerouting gas will be harder still. Moscow is largely pinning its hopes on developing gas exports to China, in particular through the planned 50bn m^3/yr Power of Siberia 2 (PoS 2) pipeline and increasing supplies to southern Europe through a Turkish gas hub proposed by Putin in October.

But so far there are no firm signs that Beijing wants PoS 2 gas. And it seems unlikely that European countries hit by halted Russian supplies through the 55bn m^3/yr Nord Stream 1 and 33bn m^3/yr Yamal-Europe pipelines, and the transit route through Ukraine, will queue up for deliveries from Putin's Turkish hub.

Failing state

Putin has failed to realise any of his goals in invading Ukraine — presented to the Russian public as a pre-emptive strike to neutralise a Nato Trojan horse on Russia's borders. Ukraine remains defiantly independent, its national identity if anything stronger than before, while Nato members funnel weapons to it. Russia itself is diminished, the poor performance of its military emblematic of the corruption and mismanagement that plague the country as whole.

Russia undoubtedly still has a role as an energy exporter and producer but it is one that is much less assured than a year ago. Cut off from the main natural market for its lifeblood resources, it now faces a future in which it must increasingly hawk them on the cheap to whatever takers it can find.

NEWS

Gazprom launches Kovykta

The start-up of Kovykta should allow Gazprom to meet its east-bound exports target

Gazprom has commissioned its 623.3bn m^3 Kovykta gas field in Irkutsk, eastern Siberia — key to plans for increased pipeline exports to China.

President Vladimir Putin attended the online launch ceremony on 21 December for Kovykta and an 804km pipeline linking the field to the producing 449bn m^3 Chayandinskoye field in eastern Siberia's Sakha-Yakutia region — until now the only source of gas for Gazprom's 38bn m^3/yr Power of Siberia 1 (PoS 1) pipeline to China. Chayandinskoye and PoS 1 were commissioned in December 2019.

Kovykta should provide 5bn m^3 of gas for export to China in 2023, when Gazprom plans to increase PoS 1 exports by more than 57pc to 22bn m^3 — up from the 14bn m^3 scheduled this year — supported by Kovykta production and rising output from Chayandinskoye. Gazprom is targeting capacity PoS 1 flows to China from 2025-27 — by then, Chayandinskoye and Kovykta should be producing more than a combined 50bn m^3/yr.

Kovykta is scheduled to reach its 27.2bn m^3/yr production plateau by the end of 2026, requiring the construction and commissioning of three 6bn m^3/yr gas treatment facilities, in addition to an operational plant of the same capacity. Kovykta condensate production of around 4,000 b/d will flow through a 179km pipeline to a new rail terminal connecting with state-owned Russian Railways' East Siberian network, potentially for onward export to China.

But Gazprom has failed to commission on schedule a third 7bn m^3/yr unit at its 42bn m^3/yr Amur gas processing plant (GPP) this year — "we are still testing," the company says, without giving a target date for start-up.

The Amur GPP, near Blagoveshchensk, 200km from the Chinese border, will process Kovykta and Chayandinskoye gas supplied through PoS 1 before export to China. There is 14bn m^3/yr of operational capacity but start-up of the third unit is crucial for Gazprom to meet its 2023 export target.

The Amur plant is 87.5pc complete, according to Gazprom. And it is still aiming for capacity operations by the end of 2025. But the company has faced problems meeting deadlines following the withdrawal from Russia of a key contractor, German engineering firm Linde, in response to the invasion of Ukraine in February. Linde was providing cryogenic gas separation and helium production technologies and equipment for the Amur GPP.

Eastbound surge

Russia plans to increase eastbound gas exports to 48bn m^3/yr by 2025 and to 88bn m^3/yr by 2030, Putin said last week. This is part of a wider effort to "lower the influence of sanctions and other hostile actions against Russia", he said.

Putin cited further development of the Kovykta field, construction of the proposed 50bn m^3/yr PoS 2 pipeline to China and the completion of a 10bn m^3/yr pipeline link to northeast China from Russia's far east Sakhalin island as projects that will help Gazprom to achieve these targets.

Gazprom and Chinese state-owned CNPC sealed a 25-year contract for 10bn m^3/yr of Sakhalin exports in February. Moscow says the PoS 2 project is moving forward and that an agreement on price has been reached, but there has been no official comment from Beijing.

Putin also mentioned new far north LNG projects that will boost Russian LNG output by 70bn m^3/yr, "expanding the geography of exports". Novatek plans to commission the first of three 6.6mn t/yr production trains at its 19.8mn t/yr Arctic LNG 2 project on the Gydan peninsula in 2023. It is aiming for capacity operations from 2026 and will then begin developing its 5mn t/yr Obsky LNG and 19.8mn t/yr Arctic LNG 1 projects, subject to reaching investment decisions.

NEWS

The consequences of losing oil markets in Europe will become clearer next year, when reduced profit may hit upstream capex

Russian oil firms face bleak 2023

Russian oil firms face uncertainty at every level of their business in 2023, which is shaping up to be the most difficult year in their history. Exclusion from most oil markets in Europe — previously their main export destination — could be exacerbated by a rising domestic tax burden next year.

The success of efforts to divert crude exports away from Europe this year has blunted some of the expected negative impact of the EU ban on seaborne imports introduced on 5 December in response to Russia's continuing war in Ukraine. But the EU will block imports of Russian refined products from 5 February and redirecting these exports may prove more difficult.

The G7-led price cap on Russian crude exports poses another challenge — price caps on products are planned from 5 February. Moscow is still finalising its response to the measure but insists Russia will not export to buyers participating in the price cap scheme, even if this forces a reduction in output. Even before the price cap plan was agreed, the Russian government expected crude and condensate production to fall by 7.5pc to 490mn t (9.8mn b/d) next year.

An unexpected surge in Asia-Pacific demand for Russian crude, particularly from India, has cushioned Russian oil companies to an extent from declining exports to Europe since the invasion of Ukraine in late February. But this has happened largely because Russian oil has been sold at substantial discounts to regional benchmarks to reflect the higher cost of long-haul freight, and sales are barely profitable when freight rates spike, according to market participants.

Separately, rising mineral extraction tax in 2023-25 is expected to increase the cost of crude production next year, adding to the pressure on Russian oil firms' profits. And with the state remaining highly dependent on revenue from the energy sector, the finance ministry will have the oil sector in its sights as a source of extra budget funding in 2023.

New upstream projects in doubt

Russia's biggest oil companies have largely stopped disclosing their IFRS financial results this year, making it difficult to assess the full negative impact on finances of 2022's significant supply shifts. But Rosneft has revealed headline IFRS figures for the first half of this year and for January-September, the latter showing a 15pc year-on-year decline in profit.

If profits fall further next year because of lower exports and reduced crude production, as well as rising tax, companies' ability to maintain investment in new upstream projects could be threatened. At the same time, the very real prospect of a contracting market for Russian oil would undermine the logic of continuing large-scale upstream investment in new export-oriented projects.

But Rosneft is stepping-up spending on its arctic onshore Vostok Oil project. Vostok Oil has absorbed the bulk of its capital expenditure this year, which was up by almost 20pc on the year in January-September. Vostok Oil investment will increase further next year, when Rosneft will carry out the bulk of development drilling at fields on the remote Taimyr peninsula. And it will start building a 770km crude pipeline to link the project's production centres with an export terminal at Sever bay on the Arctic Kara Sea in 2023.

The company expects Vostok Oil crude exports, targeting Asia-Pacific along the Northern Sea Route, of 600,000 b/d from 2024.

Gazpromneft is investing in new production centres in western Siberia and Yamal-Nenets. And it is preparing to begin development of deep Achim deposits at Gazprom's 2.9 trillion m^3 Bovanenkovo and 1.2 trillion m^3 Kharasavey fields on the Yamal peninsula — potentially the most capital-intensive project in its history.

Publishing schedule
This is the last issue of *Argus Eurasia Energy* for 2022. The next issue will be Vol. XXVIII, 1, to be published on 12 January 2023.

NEWS

Gazprom facing Yamal dilemma

Without pipeline exports to Europe, Gazprom has limited options in the region that was meant to sustain future output

The collapse of Russian gas exports to Europe this year risks turning Gazprom's Yamal peninsula fields into stranded assets, in the short term at least.

Yamal is home to the 2.9 trillion m³ Bovanenkovo field, for now the only producing field in the region, and 1.2 trillion m³ Kharasavey, which is scheduled for start-up in 2024. Development of these Yamal fields was planned to fully offset the natural decline of Gazprom output in western Siberia's Nadym-Pur-Taz province, which still provides around three-quarters of the company's production capacity.

Gazprom has 18 fields onshore and offshore Yamal with combined reserves and resources of 20.4 trillion m³. The so-called "northern corridor", with 115bn m³/yr of pipeline capacity, links the region via three large export pipelines to Europe — 55bn m³/yr Nord Stream 1, 55bn m³/yr Nord Stream 2 and 33bn m³/yr Yamal-Europe. Gazprom had planned to expand northern corridor capacity to at least 200bn m³/yr, although it never gave a deadline for achieving this.

But shipments through Yamal-Europe to Poland and Germany were halted earlier this year, followed by the suspension of Nord Stream 1 exports to Germany in response to EU sanctions imposed on Russia after the invasion of Ukraine. Nord Stream 2 was never commissioned — the German government suspended its the required certification process in February. Both Nord Stream routes are now out of commission after sustaining damage from sub-sea explosions in late September.

Gazprom has 115bn m³/yr of production capacity on the Yamal peninsula — corresponding to Bovanenkovo's plateau Cenomanian layer output. And Cenomanian layers at nearby Kharasavey will add 32bn m³/yr in 2024. But the development of deeper Bovanenkovo layers, with production potential of around 25bn m³/yr, as well as other Gazprom fields on Yamal, appears to be on hold.

The planned 143bn m³/yr of combined Cenomanian output from Bovanenkovo and Kharasavey would have been enough to feed Yamal-Europe and both Nord Stream lines. But with exports suspended, Bovanenkovo's 115bn m³/yr is now more than enough to meet domestic demand in northwest Russia and the feedgas needs of Gazprom's 1.5mn t/yr Portovaya LNG plant on the Baltic Sea.

Gazprom's operational export capacity to Europe, excluding the Baltic states, and Turkey is now just over 60bn m³/yr — although exports are lower. The 31.5bn m³/yr Turkish Stream and 16bn m³/yr Blue Stream pipelines run beneath the Black Sea to Turkey — half of the former's capacity is reserved for shipments to Europe — and a line of about 15bn m³/yr crosses Ukraine. These routes are supplied from Nadym-Pur-Taz, which also provides over 200bn m³/yr for the domestic market.

Ignoring the obvious

Gazprom also wants to link Nadym-Pur-Taz to eastern Siberia, to ensure the proposed 50bn m³/yr Power of Siberia 2 (PoS 2) export route to China has sufficient reserves, although Beijing has made no commitment to PoS 2 imports. Gazprom also hopes to increase sales to Europe through a proposed Turkish hub, although this looks like a longer-term prospect. But if either plan moves forward, Gazprom must link Yamal fields to the Nadym-Pur-Taz network — a big technical challenge, requiring 1,000km pipelines crossing a region that is largely swamp in summer.

Leading Russian LNG producer Novatek's chairman and co-owner, Leonid Mikhelson, has highlighted the logic for joining forces with Gazprom to develop all Yamal peninsula gas for export as LNG. Novatek has operational export infrastructure on the Yamal peninsula and is building more.

But Gazprom remains reluctant to team up with the independent, despite Mikhelson's proposals appearing more viable than PoS2 exports to China or finding new markets in Europe through a new Turkish hub.

NEWS

EU agrees gas price cap

An attempt to prevent further price surges may have negative market consequences, write Matt Drinkwater and Dafydd ab Iago

EU energy ministers have agreed a price-cap mechanism to tackle high gas prices in Europe resulting from reduced Russian supply — before and since the invasion of Ukraine in February.

The system, agreed on 19 December, will be introduced from 15 February. The mechanism is triggered when the Dutch TTF hub's front-month derivative contract on the Ice Endex exchange settles above €180/MWh ($1,880/'000m^3) for three working days and is €35/MWh higher than a reference price basket that includes the UK's NBP gas hub, and LNG delivered to Europe and northeast Asia. This threshold would have been met nearly 40 times since 1 October 2021.

Kremlin spokesman Dmitry Peskov described the cap as "unacceptable" and "a violation of the market pricing process". Moscow is preparing its response, he added. Russia is drafting a presidential decree in response to the G7-led price cap on crude exports — it has said it will not supply oil under the terms of the cap.

Once the EU's "market correction mechanism" is triggered, month ahead, three month ahead and year-ahead transactions at all EU gas hubs cannot exceed a "dynamic bidding limit", set €35/MWh above the reference price basket. The limit will initially apply only to exchange-traded contracts but the mechanism could be extended to over-the-counter transactions.

The price cap will apply for at least 20 working days from triggering and will automatically deactivate if the price is below €180/MWh for three consecutive days. It is also automatically deactivated if a regional or EU-wide emergency is declared by the European Commission — particularly if gas supply falls so far short of demand that rationing is required. The cap may be suspended if demand rises by 15pc in a month or by 10pc in two consecutive months, if quarterly EU LNG imports fall substantially or if TTF traded volume falls significantly.

EU regulators will publish by 23 January a preliminary report assessing the market-correction mechanism's potential consequences for financial and energy markets and gas supply security. A full report will be submitted to the commission by 1 March, when it may propose the exclusion of some hubs.

"The commission has always been very clear that this mechanism brings benefits but comes with risks," EU energy commissioner Kadri Simson said on 19 December. Some industry observers and market participants are concerned that the political focus on lower headline gas prices has overridden valid concerns about the stability of European energy markets.

IN BRIEF

Gazprom exports near 100bn m^3

Gazprom pipeline sales to Europe, excluding the Baltic states, Turkey and China had reached 97.8bn m^3 by 15 December, more than 45pc lower than on 1 January-15 December 2021. If exports in the second half of this month match the 2.6bn m^3 supplied on 1-15 December, sales could reach 100bn m^3. But with planned shipments to China of 14bn m^3 this year, exports to Europe, excluding the Baltic states, and Turkey would be almost halved. Gazprom halted supplies to Europe through the 55bn m^3/yr Nord Stream 1 and 33bn m^3/yr Yamal-Europe pipelines earlier this year and has reduced deliveries through Ukraine to around 42mn m^3/d from over 80mn m^3/d last year. The 15.75bn m^3/yr of capacity reserved for Europe on Gazprom's 31.5bn m^3/yr Turkish Stream pipeline is now operating at capacity. Gazprom gas production was nearly 20pc lower than a year earlier at 394.1bn m^3 by 15 December. Full-year production would reach around 411bn m^3 if output remains steady until the end of December, down from 514.8bn m^3 in 2021.

NEWS

Transneft ready to ship more oil east

Pipeline capacity can be added in the far east region and there is spare capacity at Novorossiysk

Russian pipeline operator Transneft is ready to expand eastbound export capacity if needed, chief executive Nikolai Tokarev said on 20 December.

The company has increased loading capacity for ESPO Blend crude at its far east Kozmino terminal by 40pc to 42mn t/yr (850,000 b/d) this year, he added. Kozmino is served by the East Siberia-Pacific Ocean pipeline.

ESPO Blend exports increased by 13pc on the year to nearly 36mn t (800,000 b/d) in January-November, according to market participants, and loadings could hit a record-high 3.8mn t this month.

Russia has been forced to divert crude flows east as European buyers began shunning Russian crude following the 24 February invasion of Ukraine. This prompted increased flows to Asia-Pacific, particularly India. The EU banned almost all seaborne imports of Russian crude from 5 December.

At Novorossiysk port on the Black Sea, Transneft has expanded export capacity for "low-sulphur" crude by 8pc to 40mn t/yr this year and it is planning an increase to 52mn t/yr, according to Tokarev, although no further details are given. This appears to refer to a project, predating any talk of an EU ban on Russian crude, to lift pipeline capacity from 37mn t/yr on the Kuibyshev–Tikhoretsk section of the Transneft system, which carries light sweet crude to Novorossiysk, mainly for loading as Siberian Light.

Overall crude loadings at Novorossiysk of 560,000 b/d so far this year are up by more than 20pc against 2021 exports, comprising Urals and Siberian Light. But Novorossiysk shipped well over 900,000 b/d of crude before 2006 and exports were around 850,000 b/d until 2012, before declining steadily.

Overall crude flows through the Transneft system increased by 4.5pc on the year in January-November, Tokarev said, without giving outright numbers. Pipeline crude exports increased by 20pc on the year, with seaborne exports up by a quarter, he added. Crude exports through the Transneft system were 202.6mn t (4.41mn b/d) in January-November, according to traders.

NEWS

Belarus, Russia agree on gas price

Belarus has agreed a three-year fixed price for Russian gas supplies. The deal was reached by Russian president Vladimir Putin and his Belarusian counterpart, Alexander Lukashenko, in Minsk on 19 December.

"We have fixed a price that is very attractive for us," Lukashenko said after meeting Putin, without giving further details. Belarus wanted to pay a price in line with domestic Russian prices — equivalent to around $100/'000m³.

And Lukashenko was "satisfied with the outcome of talks regarding the single gas market", he said on 19 December — Russia, Belarus, Kazakhstan, Kyrgyzstan and Armenia are planning implementation of a unified gas market with a single pricing mechanism by 2024. Only last week, the Belarusian president complained that little progress had been made.

Lukashenko also claimed new "angles" related to gas supplies have emerged, saying details will be given later. Belarus is fully dependent on Russian imports of around 20bn m^3/yr. It has been paying in roubles for Russian gas since April — it originally agreed a price of $128.52/'000$m^3$ for this year.

Putin's visit to Belarus comes against the background of widespread speculation that Russia wants direct Belarusian military involvement in the war in Ukraine, which Minsk has avoided so far — possibly for a new offensive. Both heads of state mentioned military co-operation during a joint press conference.

NEWS

Hungary wants EU push for Adria expansion

EU intervention is required to ensure sufficient Adria capacity to provide supply security in central Europe, writes Bela Fincziczki

Budapest wants the European Commission to pressure Croatia to expand capacity on the 400,000 b/d Adria crude pipeline system from the port of Omisalj. Hungary also wants EU intervention to prevent a sharp increase in planned Adria transit fees, according to foreign minister Peter Szijjarto.

The EU should require member state Croatia to expand Adria capacity for the benefit of all EU countries, he said on 15 December.

The state-controlled Janaf-operated oil terminal at Omisalj and Adria system provides pipeline links to refineries in EU members Hungary, Slovakia and the Czech Republic, as well as Serbia. Adria offers a back-up crude supply route if there are problems with regular Russian deliveries through the Druzhba pipeline system, which the three EU countries are dependent on.

If Druzhba flows halted, Hungarian firm Mol's 161,000 b/d Szazhalombatta refinery in Hungary and 115,000 b/d Bratislava refinery in Slovakia would need a combined 280,000 b/d (14mn t/yr) of capacity on Adria to meet demand, while the Czech Republic would need about 100,000 b/d, according to Szijjarto. But available Adria capacity falls short — the 80km Sisak-Virje stretch of the system in Croatia, which leads to the Hungarian border, can carry only 220,000 b/d (11mn t/yr) of crude, he said. Hungary and Croatia discussed the possibility of a capacity increase in May, but there has been no progress since then, Szijjarto said.

Separately, he demanded that "the commission step in... and reject" an attempt by Janaf to "raise transit fees significantly, effectively abusing the [Ukraine] war situation".

Croatia's plan to hike crude transit fees is an "abuse" of its monopoly position, Szijjarto said. At a meeting of EU energy ministers on 19 December, he called for the EU to ensure crude pipeline tariffs on "alternative routes... necessary because of the war", cannot rise above European averages.

Hungarian oil firm Mol's transit contract with Janaf expires at the end of this year and Janaf wants to increase its fees by 80pc, 2½-3 times higher than elsewhere in Europe, Szijjarto claimed. Negotiations between Janaf and Mol are under way, he said, without disclosing the existing or proposed new tariffs.

Pipeline supply from Russia is exempt from the EU ban on imports from 5 December and Hungary, Slovakia and the Czech Republic continue importing Druzhba crude. Adria is the only alternative pipeline route for supply to landlocked Hungary and Slovakia, while the Czech Republic can also import along the 900,000 b/d Transalpine Pipeline from the Italian port of Trieste.

The EU has given the Czech Republic an 18-month exemption from the Russian import ban to source alternative crude supply — Polish oil firm PKN Orlen owns the country's 108,000 b/d Litvinov and 66,000 b/d Kralupy refineries. Timelines for Hungary and Slovakia to phase out Russian crude have not been set.

Russian oil export duty drops

Russian export duty on crude and refined products will fall to the lowest since June 2020 next month, partly because of changes to the calculation methodology. Crude duty drops by more than 61pc to \$16.70/t (\$2.32/bl) in January, largely reflecting the phased scaling back of oil export duties to zero by 2024, offset by rises in mineral extraction tax on crude production. The reduction is also a result of lower crude prices during the most recent monthly monitoring period, with Urals down by 19pc. The Russian government sets export duty rates for crude and refined products based on *Argus* price assessments.

Russian oil export duty		$/t
	Jan	Dec
Crude	16.70	43.30
Clean products*, base oil	5.00	12,90
Naphtha	9.10	23,80
Dirty products†	16.70	43,30
Petroleum coke	1.00	2.80
Average Urals price‡, $/bl	*57.49*	*71.13*

** gasoil/diesel, gasoline and jet fuel †excl. base oil, petcoke ‡in monthly monitoring period ending 14th day of previous month*

EXPORTS AND TRADE

Russian crude exports stay lower after EU ban

Seaborne exports of Russian crude are 19pc lower than full-month November loadings since the introduction of the EU embargo on imports and G7-led price cap on 5 December.

Crude shipments from Russian ports — excluding CPC Blend and Kazakh-origin Urals, renamed Kebco — were 2.54mn b/d on 5-21 December, according to data from oil analytics firm Vortexa. Combined loadings of Urals and Siberian Light at Baltic and Black Sea terminals were down by 18pc at 1.33mn b/d.

More than 1mn b/d of Russian crude has been shipped to India and China since 5 December. But this is sharply lower that the 2.28mn b/d exported to the countries last month, accounting for nearly three-quarters of total loadings.

More than 316,000 b/d of Urals loaded on 5-21 December is moving east of Suez, but this figure may increase — many tankers are yet to indicate their final destinations, reflecting the long voyage times to India and China. Around 1.1mn b/d of Urals went to India and China in November.

Around 246,000 b/d of Urals has loaded on six tankers that are flagging destinations in Europe. Two are heading to Bulgaria — which has a two-year exemption from the EU ban on Russian crude — two have signalled Greece, one is going to the Netherlands and the sixth to an undisclosed port or country. But none of the latter four cargoes have arrived in Europe yet, suggesting the final destinations for this crude may change.

Baltic Urals' fob Primorsk discount to benchmark North Sea Dated crude was unchanged on the week at $38/bl on 21 December. But Black Sea cargo discounts widened by $4/bl fob Novorossiysk — to a record-deep $40/bl for 80,000t Aframax shipments. Bad weather at Novorossiysk is threatening to hold up loadings and queues persist for tankers entering the Turkish straits from the Black Sea, with the delays adding to freight rates. The Black Sea war-risk insurance premium is also pushing up freight costs, market participants say.

Loadings of light sweet ESPO Blend at Russia's far east port of Kozmino were 30pc lower than full-month November exports at 577,000 b/d on 5-21 December. Cargoes have gone only to China so far this month — some November-loaded ESPO Blend moved to Thailand. The grade's discount to Mideast Gulf benchmark medium sour Dubai widened by $1.50/bl on the week to $7.50/bl on 21 December — ESPO Blend traded at an average $2.45/bl premium in 2021.

IN BRIEF

US explains Russia product price cap rules

Exports of Russian refined products loaded on tankers before 5 February and discharged before 1 April will not be subject to the G7-led price cap mechanism, the US Treasury Department says. The guidance issued on 21 December is the first indication of how the US, EU and G7 plan to implement price caps on Russian product exports to destinations outside North America and Europe. Price caps on products will be introduced on 5 February, coinciding with the EU embargo on Russian imports. The US, EU and their G7 partners, together with Australia, have previously said they plan to set separate price caps for high-value and low-value products — further details are expected closer to the enforcement deadline. A $60/bl price cap was imposed on Russian seaborne crude exports from 5 December. The price cap bans western traders, shipbrokers and providers of maritime insurance and financial services from enabling Russian exports, unless the price paid for the cargo is at or below the cap. Shippers that rely on non-G7 service providers will not be subject to sanctions.

EXPORTS AND TRADE

Arctic crude exports				*'000t*
	Nov	±% Oct	Jan-Nov	±% Jan-Nov 21
Crude	1,325	-8.4	15,123	4.3
Varandey Blend	455	-12.4	5,515	23.1
from the Umba	870	-6.0	9,516	-4.2
Sandibinskaya	0	-	66	2.8
Kolguev	0	-	25	-33.7
Condensate	80	4.8	840	-7.2
Nornickel	0	-	64	-15.0
Yamal LNG	80	4.8	776	-6.5
Total	**1,405**	**-7.7**	**15,963**	**3.6**
Total, '000 b/d	***343***	***-7.7***	***350***	***3.6***
Supplies to floating storage				
from Varandey*	414	-11.4	5,377	27.2
Novy Port Light†	557	1.7	6,201	-6.4
Arco†	336	3.1	3,411	5.6

*comparisons based on daily average shipments *to the Kola †to the Umba*

— Morcentre-TEK, shipping agents, Vortexa

Arctic exports to Europe slide

Russian arctic crude and condensate exports fell by almost 8pc on the month to 343,000 b/d (1.4mn t) in November, according to port statistics agency Morcentre-TEK. Shipments to Europe dropped by nearly two-thirds on the month to 94,000 b/d before the EU embargo on Russian crude imports from 5 December.

Lukoil exports of Varandey Blend were more than 12pc lower on the month at 113,000 b/d — the grade is shipped by trading arm Litasco from the *Kola* floating storage tanker, moored in Kola bay, near the Barents Sea port of Murmansk.

Supplies to Europe were down by a quarter. Deliveries to Lukoil's 320,000 b/d Isab refinery in Italy were slashed by 75pc to 107,000t in November. But Varandey Blend went to Rotterdam after a break in October and Litasco supplied 140,000t to Indian state-controlled BPCL's 310,000 b/d Kochi refinery for the first time.

None of Gazpromneft's arctic crude exports through the *Umba* floating storage tanker in Kola bay went to Europe last month, against 143,000 b/d in October. Total exports fell by 6pc to 209,000 b/d (870,000t), according to Morcentre-TEK, but shipments were higher than usual in October, market participants say, as a build-up of crude on the *Umba* was cleared. Gazpromneft does not provide a breakdown by grade for *Umba* loadings of its Novy Port Light and Arco crudes.

India was the only destination for Gazpromneft exports in November and supplies to the country more than tripled on the month to 211,000 b/d (865,000t). Deliveries to Vadinar jumped by 345,000t to 485,000t in November — the port serves refineries operated by state-controlled IOC, BPCL and private-sector Nayara Energy. And Gazpromneft made its first delivery of arctic crude to Vishakhapatnam — 280,000t for Indian state-controlled refiner HPCL.

Condensate exports from Russia's arctic region, all from the Yamal LNG consortium in November, rose by nearly 5pc against October to 22,000 b/d (80,000t). All exports went to Rotterdam last month, with no long-haul shipments to China.

Arctic crude and condensate supplies			*'000t*
Destination	**Consignees in the port**	**Nov**	**Oct**
Arco and Novy Port Light			
India:		865.0	280.0
Vadinar	Nayara Energy (Rosneft/Trafigura/UCP/Essar), Bina (BPCL), Koyali and Mathura (IOC)	485.0	140.0
Vishakhapatnam	HPCL	280.0	0.0
Mumbai	BPCL, HPCL	0.0	140.0
Paradip	Paradip, Haldia, Barauni, Bongaigaon (IOC)	100.0	0.0
Italy: Savona-Vado	ExxonMobil/API	0.0	106.3
China: Rizhao	Shandong private-sector	0.0	68.9
Netherlands: Rotterdam	Rotterdam (BP, ExxonMobil, Gunvor, Shell, Vitol), Antwerp (ExxonMobil, TotalEnergies), Wesseling and Godorf (Shell), Gelsenkirchen (BP), Vlissingen (TotalEnergies/Lukoil)	0.0	500.0
Varandey Blend			
India: Kochi	BPCL	140.0	0.0
Italy: Augusta	Lukoil, Sonatrach	107.0	420.0
Netherlands: Rotterdam	As above	200.0	0.0
UAE: Ruwais	Adnoc	0.0	140.0
Yamal LNG condensate			
China: Gulei	Sinopec	0.0	41.6
Netherlands: Rotterdam	As above	79.0	37.0

— Vortexa, shipping agents

EXPORTS AND TRADE

Russia product exports to Africa*			'000t
	2022	2021	±%
Egypt	2,404.9	635.5	278.4
Tunisia	900.6	135.3	565.8
Morocco	838.7	455.0	84.3
Senegal	779.6	644.8	20.9
Libya	343.4	427.2	-19.6
Togo	235.4	240.0	-1.9
Nigeria	197.2	-	na
Algeria	196.1	-	na
Cameroon	-	180.6	-100.0
Mauritania	-	148.3	-100.0
*main destinations			— Vortexa

More Russian products for Africa

Products exports to Africa from Russia are on course to nearly double in 2022, data from oil analytics company Vortexa show. Shipments could reach 6.5mn t by the end of December, up from 3.29mn t in 2021.

Supplies to Africa started rising when trading companies were forced to find new markets, as some European buyers began shunning Russian products and the US banned imports in response to the invasion of Ukraine in February.

Gasoil accounted for about 40pc of total product exports to Africa from Russia by 15 December — 2.62mn t compared with 1.94mn t for full-year 2021. Morocco and Senegal received 517,000t and 493,000t, respectively, while Egypt took 413,000t, up from only 168,000t last year. Large quantities of Russian gasoil were also shipped to Tunisia, Libya and Togo.

Around 80pc of gasoil shipments were from Black Sea ports, mainly Novorossiysk, with trading companies Vitol, Coral Energy and Trafigura, as well as Lukoil trading arm Litasco, the largest suppliers, according to Vortexa and shipping agents.

Russian fuel oil exports to Africa this year, of 2.4mn t by 15 December, were up from 1mn t last year. Supplies to Egypt accounted for nearly three-quarters of the total, compared with 39pc in 2021, exports surging to 1.78mn t from 393,000t. Litasco and trading firm Mercuria Energy were the main shippers, loading product at the Baltic ports of Ust-Luga and Vysotsk, shipping agents say.

Nearly all fuel oil went to Ain Sokhna, almost certainly for re-export, with small cargoes delivered to Port Said and Alexandria. Fuel oil shipments from Ain Sokhna were nearly two-thirds higher than the 2021 daily average at 6,600 t/d (2.3mn t) by mid-December, with much of this product heading to Saudi Arabia.

Russian naphtha exports to Africa surged to 793,000t in the year to 15 December, from just 63,000t last year. Around 507,000t was shipped to Tunisia alone since August, mainly by Coral Energy and Litasco. Naphtha exports from Tunisia started rising rapidly from the end of this summer, with product mostly going to South Korea. Tunisia did not ship naphtha to South Korea in 2021.

Exports of gasoline to Africa were almost four times higher at 398,000t by 15 December, up from 114,000t last year. Large amounts of Belarusian gasoline, loaded at Ust-Luga, was shipped to Africa by Vitol, Gunvor and Litasco, traders say. About a third of total gasoline exports from Russia went to Nigeria.

Russia is the sixth-largest exporter of products to Africa so far in 2022, covering 6pc of total imports. Russia was ranked 11th last year with a 3.2pc share.

IN BRIEF

Novoshakhtinsk ups naphtha exports

Russia's 100,000 b/d Novoshakhtinsk refinery is increasing product exports this month, despite a 5-11 December suspension of crude processing. The temporary halt of runs at the plant's two crude units followed a build-up of products in storage. Novoshakhtinsk will process about 485,000t of crude in December, traders say. It plans to export about 80,000t (2,600 t/d) of naphtha, 75,100t (2,400 t/d) of gasoil and 520t of bitumen this month, according to freight forwarding companies. Naphtha exports of 1,660 t/d (23,300t) in the first half of December were nearly 40pc higher than full-month November, with product delivered to the Black Sea port of Novorossiysk and Rostov-on-Don for export. Gasoil exports from Novorossiysk were just 60 t/d (8,700t) on 1-15 December, down from 1,430 t/d (43,000t) in November. Exports rose last month to meet increased European demand because of refinery shutdowns.

EXPORTS AND TRADE

Russian diesel supplies rise

Seaborne exports of diesel and gasoil from Russia increased by more than a quarter against the full-month November average to 197,890 t/d on 1-12 December.

Northwest Europe accounted for a third of total shipments at 66,030 t/d, roughly in line with November. But exports to Germany of 19,560 t/d on 1-12 December were up by 32pc against full-month November.

Supplies to the Amsterdam-Rotterdam-Antwerp hub were 12pc lower at 24,500 t/d in the first 12 days of this month, although exports to the Netherlands increased by 20pc to 19,050 t/d. Dutch demand may have been supported by an unplanned shutdown of BP's 393,800 b/d Rotterdam refinery because of industrial action. Russian seaborne exports to France dropped by around two-thirds to 5,730 t/d, following the end of strikes that had forced several refineries off line.

Gasoil and diesel shipments to the Mediterranean region fell by more than 18pc compared with full-month November to 35,020 t/d (420,200t) on 1-12 December. But deliveries to Turkey, which remains the top regional destination, were almost a quarter higher at 25,940 t/d.

Shipments of Russian gasoil and diesel to Greece dropped by 73pc to only 2,760 t/d on 1-12 December — all supplied to Agioi Theodoroi, the main destination for supplies in November. But exports to Egypt surged to more than 19,000 t/d this month from just 92 t/d (2,770t) in November.

Russian supplies to Bulgaria, Georgia and Romania on the Black Sea were up by more than three-quarters against full-month November at 11,020 t/d in the first 12 days of this month. Product was mainly shipped from Russia's Black Sea port of Novorossiysk, as well as Tuapse, Temryuk and Kavkaz.

Seaborne gasoil and diesel exports to Asia-Pacific were roughly steady compared with November at 10,370 t/d on 1-12 in December. Exports to South Korea were 57pc higher at 6,770 t/d. Supplies to Asia-Pacific reached around 10,000 t/d in October, up from around 6,000 t/d in May-September.

EXPORTS AND TRADE

Gasoline exported through Murmansk

Russia's far north Barents Sea port of Murmansk loaded gasoline for export for the first time in November, and traders expect shipments to continue.

Trading company Horizon chartered the *Histria Dione* to load 26,900t of A-92 gasoline at the First Murmansk terminal on 22 November, which discharged at Barcelona port on 6 December, data from oil analytics company Vortexa show. Gasoline deliveries by rail to Murmansk for export began in October, when Gazpromneft's 450,000 b/d Omsk refinery supplied 20,810t, freight forwarding companies say. Gazprom's 254,000 b/d Salavat and Neftekhimservis' 60,000 b/d Yaisky refineries started shipping gasoline to the port in November.

Murmansk loaded only naphtha earlier this year. The last shipment was in March, with first-quarter exports only 18,000t, according to Vortexa, all supplied to Finland. Total naphtha supplies by rail to Murmansk were 28,960t in January-March, compared with none in 2021. Shipments were 129,000 t/yr in 2019-20.

Rosneft's 90,000 b/d Nizhnevartovsk refinery was the main supplier of naphtha in the first three months of this year, with the oil company supplying smaller amounts from its 164,000 b/d Novokuibyshev and 200,000 b/d Syzran plants, according to freight forwarding companies.

Separately, trading company Vitol loaded 35,600t of alkylate at Murmansk on the *Minerva Julie* on 7 December, for delivery to the Latvian port of Ventspils, according to Vortexa. The firm last supplied the product from the port in July.

NEWS

Russia fine-tuning price cap response

President Vladimir Putin said on 22 December that he will sign a law to prevent exports of Russian crude under the terms of the G7-led price cap mechanism on 26 or 27 December. He also said that if the EU price cap on gas from 15 February violates Gazprom's contracts, "we reserve the right to consider whether we are obliged to fulfil those contracts".

"Certain nuances remain in terms of harmonising the wording" of Russia's response to the crude price cap, Kremlin spokesman Dmitry Peskov had said on 22 December, according to Russian state-owned news agency Tass. The detail of the EU's planned gas price cap is being analysed, he said. Deputy prime minister Alexander Novak said on 6 December that crude price cap legislation would be adopted by the end of this month.

The EU, the G7 and Australia introduced a $60/bl price cap on sales of Russian seaborne crude to third-party countries on 5 December, alongside the EU ban on Russian crude imports, in response to the continuing war in Ukraine. The price cap mechanism bars western traders, shipbrokers and providers of marine insurance and financial services from enabling Russian crude exports if the cargo was sold at a price above $60/bl. The aim is to reduce Moscow's export revenue while ensuring the continued flow of Russian oil to global markets.

Price caps on Russian refined product exports will be imposed from 5 February, at the same time as the EU embargo on Russian product imports — separate price caps for high-value and low-value products have not yet been decided.

IN BRIEF

Novatek wins new Taimyr licence

Novatek paid Rbs19.7mn ($304,000) to secure a 27-year production licence for the Yeniseyskiy area on the remote Taimyr peninsula, in eastern Siberia's Krasnoyarsk territory. The Yeniseyskiy licence potentially covers reserves of 26.9bn m^3 of gas and 2.3mn t (17mn bl) of liquids. No wells have been drilled at the licence, which is in a new, "highly prospective" oil and gas province with resource growth potential in Palaeozoic and Jurassic reservoirs, Novatek says. Yeniseyskiy is adjacent to Novatek's South-Leskinskiy licence, acquired in 2018, raising its total Krasnoyarsk licences to nine. The Taimyr peninsula could potentially provide the focus for a new Russian LNG hub — Rosneft has proposed LNG exports as part of its wider Vostok Oil project, which includes field development on Taimyr. And Krasnoyarsk gas production could help to offset falling output in western Siberia's key Nadym-Pur-Taz province, if new pipeline infrastructure is built.

Azerbaijan to sell gas to Romania

Azeri state-owned Socar will supply an unspecified amount of gas to Romania from 1 January under a deal with Romanian state-controlled Romgaz. Gas will be shipped through the 10bn m^3/yr Trans Adriatic Pipeline (Tap) — the final leg of Azerbaijan's southern corridor route to Europe across Turkey. Tap is linked to the recently commissioned 3bn m^3/yr Greece-Bulgaria interconnector, which carries more than 1bn m^3/yr of Azeri gas to Bulgaria, leaving spare capacity for onward deliveries to Romania. The latter almost fully covers demand with domestic output but needs imports in winter. Romania began exporting small amounts of gas to Moldova in early December through the 43km Iasi-Ungheni pipeline link. Moldova is eager to reduce its dependence on Russian imports to meet demand of around 3bn m^3/yr. Azerbaijan is targeting a 41pc increase in exports to Europe to almost 11.5bn m^3 this year and hopes to raise sales further in 2023.

STOCK MARKETS

Energy shares				21 Dec
Russia $	**21 Dec**	**±14 Dec**	**52 week low**	**52 week high**
Indexes				
RTS	940.03	-120.71	610.33	1,640.39
RTS Oil & Gas	152.37	-18.33	88.67	257.16
Oil & gas issuer	21 Dec	±14 Dec	52 week low	52 week high
Bashneft	12.81	-1.51	7.88	18.48
Gazprom	2.19	-0.31	1.70	4.80
Rosneft	4.76	-0.42	2.08	7.48
Lukoil Holding	55.95	-15.16	35.84	84.39
Novatek	14.71	-1.25	7.76	21.78
Gazpromneft	6.71	-0.504	3.67	6.69
Surgutneft.	0.31	-0.03	0.19	0.49
Surgutneft. pref	0.35	-0.03	0.30	0.63
Tatneft	4.87	-0.65	2.94	6.55
Transneft pref	1,204	-117.18	961	2,242
Utilities				
Mosenergo	0.024	-0.002	0.015	0.027
ADRs and GDRs				
Gazprom	na	na	na	na
Lukoil	na	na	na	na
Mosenergo €	na	na	na	na
Novatek	na	na	na	na
Central & Eastern Europe (local currency)				
Hungary				
Mol	2,632	-10.00	2,300	3,170
Latvia				
Latvijas Gaze	8.70	+0.10	5.94	10.63
Lithuania				
Klaipedos Nafta	0.24	-0.005	0.20	0.31
Poland				
PKN	63.30	-0.28	49.05	83.66
Grupa Lotos	na	na	47.44	81.90
Romania				
Rompetrol	0.083	+0.001	0.056	0.092
Slovakia				
Slovnaft	na	na	na	na
Slovenia				
Petrol	20.50	+0.20	17.60	28.30
Independent E&P companies (UK pence)				
JKX	na	na	na	na

2022 takes it toll on Russian stocks

Russia's RTS index took a big hit in the penultimate week of 2022, sliding by 11pc on the week to close at 940 points on 21 December — its lowest since 25 April.

The index slumped in line with the rouble, which neared an eight-month low at Rbs72 against the dollar. The Russian currency has fallen by 15pc so far this month, but analysts predict the rouble will recover some ground in the final week of this year, when exporters convert foreign currency revenue into roubles to make tax payments. There are no reasons for a prolonged weakening of the rouble, according to Alfa Bank. But Sberbank points out that if the rouble remains weak, it could boost exporters' financial results.

Russian oil stocks fell this week — **Gazpromneft** by nearly 7pc and **Lukoil** by more than 21pc — against the backdrop of continuing uncertainty over future revenues after the EU crude embargo and the G7-led price cap came into force on 5 December. Moscow has not yet finalised legislation blocking exports under price cap terms. **Novatek** and **Gazprom** shares were down by 8pc and 12pc, respectively, as the EU agreed a price cap mechanism for European gas markets.

The main Russian oil and gas stocks have all dropped significantly since the start of this year. **Rosneft** and Gazprom led the decline, sliding by 44pc and 55pc, respectively. Rosneft shares closed 8pc lower on the week at $4.76 on 21 December, with Gazprom at $2.19/share.

Surgutneftegaz's ordinary and preferred shares have fallen by 43pc and 35pc, respectively, in 2022 with **Tatneft** ordinary and preferred stock down by 32pc and 27pc. Lukoil and Novatek have both lost 39pc since the beginning of this year. Lukoil closed at $55.95/share on 21 December and Novatek at $14.71/share.

Gazpromneft has fared slightly better this year, its share price down by 10pc. Company shareholders have approved a dividend payout of Rbs69.80/share for the first nine months of this year — a dividend yield of 15pc. Bank Sinara forecasts fourth-quarter dividends at Rbs16/share, with a yield of 3pc, based on Gazpromneft's policy of paying 50pc of adjusted profit.

Good news for Transneft

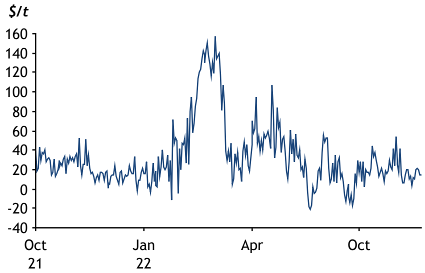
Sinara notes Germany's apparent interest in buying Kazakh crude delivered through the Druzhba pipeline system in 2023. **Transneft** would potentially have a role in arranging supplies through its pipeline system and would generate transit revenue. This would be positive for Transneft, helping to offset revenue lost from reduced Russian crude transport, Sinara says. Transneft insists there are no agreements or even talks yet on Kazakh shipments through Druzhba.

Transneft is planning capital expenditure (capex) of Rbs230bn ($3.2bn) in 2023, company president Nikolai Tokarev said this week — the figure probably includes value-added tax (VAT), according to Sberbank, which puts capex excluding VAT at around Rbs193bn. The capex guidance seems "moderate" and "should leave plenty free cash flow for dividends", the bank says. Sberbank gives Transneft preferred stock a buy recommendation — shares have dropped by 46pc since the beginning of this year and were nearly 8pc lower on the week at $1,204.

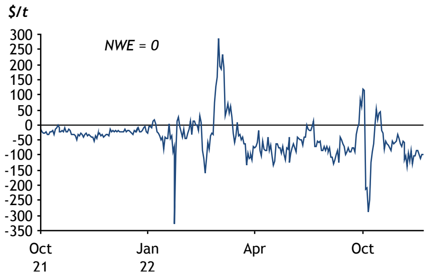
Currency exchange rates (per $)					21 Dec
Central and eastern Europe					
Bulgarian lev	1.84	Romanian leu	4.61	Georgian lari	2.67
Croatian kuna	7.11	**Former Soviet Union**		Kazakh tenge	469.18
Czech koruna	22.78	Russian rouble	69.00	Turkmen manat	3.50
Hungarian forint	378.66	Azeri manat	1.70	Ukrainian hryvnia	36.93
Polish zloty	4.39	Belarusian rouble	2.6595	Uzbek som	11,255.08

PRODUCTS MARKETS

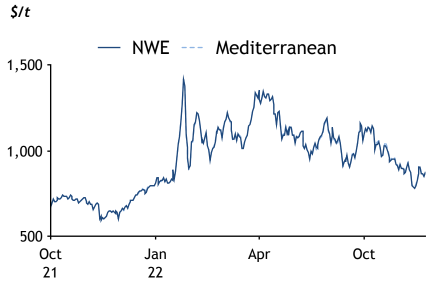
HSFO: 180cst Singapore diff to 3.5% NWE



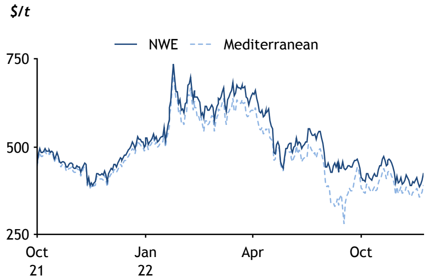
Heating oil: New York Harbor vs NWE



Heating oil: cif NWE/Mediterranean



Russian HSFO cif NWE/Mediterranean



Freight Rates		21 Dec
	WS	$/t
Black Sea-Mediterranean		
Clean 30,000*t*	675.0	71.42
Dirty 30,000*t*	625.0	60.13
Baltic-UKC		
Clean 30,000*t*	1000.0	86.60
Dirty 30,000*t*	545.0	47.91

European buyers cash in, while they can

- Russian product deliveries to Europe are accelerating before the EU import ban from 5 February. Buyers are rushing to take advantage of discounts compared with non-Russian supplies, with arrivals of Russian diesel and fuel oil up sharply.

- Shipments of Russian diesel and gasoil to northwest Europe were 38pc higher than the January-November average at 141,000 t/d in the first half of December, driving Baltic clean product freight rates to record highs of nearly $87/t this week. Russian diesel's cif northwest Europe premium to benchmark North Sea Dated rose by 11¢/bl on the week to $39.23/bl on 21 December. But Russian product remained at a $6.05/bl discount to non-Russian diesel.

- Exports of Russian naphtha jumped by 39pc on the month to 1.12mn t in the first half of December, data from oil analytics firm Vortexa show. Naphtha's cif northwest Europe discount to North Sea Dated narrowed by $4.05/bl to $13.58/bl.

- Arrivals in Europe of Russian fuel oil reached around 1.2mn t in the first three weeks of this month — nearly triple deliveries on 1-21 November. High-sulphur RMG fuel oil barges' fob Rotterdam premium to Urals crude increased by $5.32/bl to $9.66/bl on 21 December. But rising supply and relatively limited demand could soon put pressure on values.

- A roughly 30pc drop in European natural gas prices over the past week has reduced refiners' hydrocracking costs, which may support demand for high-sulphur vacuum gasoil (VGO) as a secondary feedstock. VGO premiums to Ice Brent crude futures rose by 25¢/bl on the week, to $5.75/bl for high-sulphur product and $7.25/bl for low-sulphur VGO, on a cif northwest Europe basis.

Product prices				21 Dec
	$/t			±14 Dec
NW Europe (cif)				
Heating oil	871.75	-	872.75	-31.50
Diesel	894.50	-	895.50	-24.75
Fuel oil 3.5% sulphur	420.50	-	424.50	+11.75
Gasoline non-oxy 95R unleaded	776.75	-	777.25	+14.75
Naphtha 65 para	590.00	-	591.00	+5.50
Jet	955.25	-	956.25	-40.00
VGO 1.6% sulphur	593.25	-	596.75	-5.88
West Mediterranean (cif)				
Heating oil	877.25	-	878.25	-29.75
Fuel oil 3.5% sulphur	387.75	-	391.75	+7.75
Gasoline 95R unleaded	774.25	-	774.75	+20.00
Naphtha 65 para	564.75	-	565.75	+3.75
Rotterdam barges (fob)				
Heating oil	872.00	-	872.50	-34.00
Fuel oil 3.5% sulphur	357.50	-	361.50	+8.50
VGO 1.6% sulphur	571.25	-	574.75	-5.75
Futures				
Ice gasoil	Jan		891.25	-31.50

CRUDE MARKETS

CPC Blend discount narrows

• CPC Blend gained ground against benchmark North Sea Dated crude as loadings returned to normal. Black Sea Urals slid to record-wide discounts to the benchmark, pressured by rising freight costs. North Sea Dated fell by $3.43/bl on the week to $79.93/bl on 21 December.

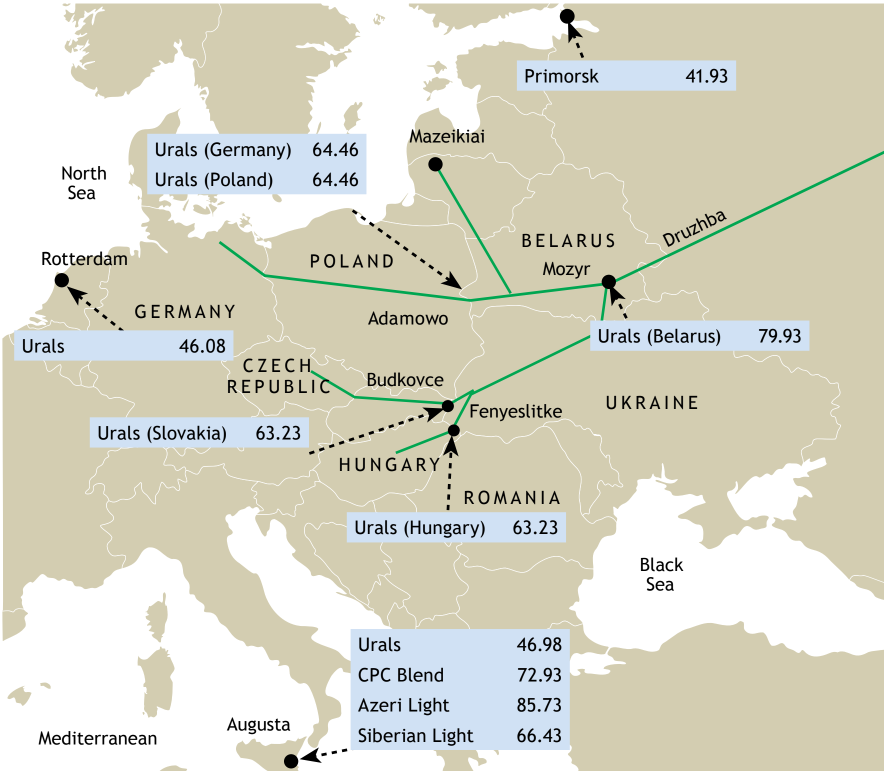
• Light sour CPC Blend's discount narrowed by $1/bl to $7bl following an easing of recent delays to tanker passage through the Turkish straits. Greek refiner Helleniq Energy picked up two January-arrival cargoes last week, through two separate tenders, traders say — the deals are not confirmed.

• A rebound in Chinese buying interest is driving demand for CPC Blend east of Suez, following an unexpectedly rapid unwinding of stringent Covid-19 lockdown restrictions this month. Port reports show the Tengizchevroil-chartered *Aegean Dream* loaded 130,000 bl for an undisclosed port in China on 18 December.

• Black Sea Urals discounts widened by $4/bl on a fob Novorossiysk basis, Aframax cargoes to a record-deep $40/bl, as freight rates rose because of the threat of loading delays caused by bad weather. The Black Sea war-risk insurance premium is also pushing up freight costs, market participants say. Baltic Urals' fob Primorsk discounts were unchanged at $38/bl.

• Light sweet BTC Blend's premium to North Sea Dated held steady at $6/bl. The stability of exports from the Turkish Mediterranean port of Ceyhan, compared with Black Sea-loading CPC Blend, has generated enough buyer confidence to offset pressure from declining middle distillate margins, for now, traders say.

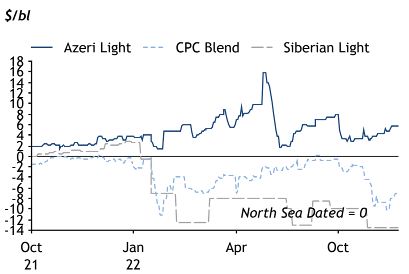
FSU oil prices (*$/bl*) **21 Dec**



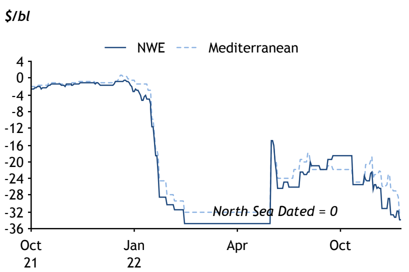
CRUDE MARKETS

Crude prices				21 Dec
NW Europe		*$/bl*	**±14 Dec**	**± N Sea Dated**
North Sea Dated	79.90	79.96	-3.43	–
Urals (cif)	46.05	46.11	-4.00	-33.85
Urals Primorsk (fob netback)	41.90	41.96	-3.43	-38.00
Mediterranean				
Urals Aframax (cif)	46.95	47.01	-9.50	-32.95
Urals Suezmax (cif)	43.54	43.60	-8.25	-36.36
Urals Aframax Novo (fob netback)	39.90	39.96	-7.43	-40.00
Urals Suezmax Novo (fob netback)	39.70	39.76	-7.43	-40.20
Siberian Light (cif)	66.40	66.46	-3.43	-13.50
CPC blend (cif)	72.90	72.96	-2.43	-7.00
CPC Terminal (fob netback)	67.35	67.41	-1.03	-12.55
Azeri Light (cif)	85.70	85.76	-3.43	+5.80
BTC (cif)	85.90	85.96	-3.43	+6.00
BTC Ceyhan (fob netback)	83.37	83.43	-2.23	+3.47
Kirkuk (fob)	59.90	59.96	-3.68	-20.00
Saharan Blend (fob)	80.40	80.46	-3.18	+0.50
Druzhba monthly prices		**Nov-2022**		**± N Sea Dated***
			Low	**High**
Slovakia	62.98	63.48	-28.12	-27.62
Hungary	62.98	63.48	-28.12	-27.62
Poland	64.21	64.71	-26.89	-26.39
Germany	64.10	64.81	-27.00	-26.29
**monthly average*				
			±14 Dec	**± N Sea Dated**
Belarus	79.90	79.96	-3.43	-
Far East				**±Dubai swaps**
ESPO Blend	67.71	67.81	-2.07	-7.50
Sokol (cif)	67.21	67.31	+0.05	-8.00
Sakhalin Blend (fob)	65.21	65.31	+0.05	-10.00
CIF basis Singapore				**± N Sea Dated**
BTC Blend	88.97	89.03	-2.42	+9.07
Urals (Black Sea)	46.91	46.97	-8.21	-32.99
Futures				
Ice Brent	Feb	82.20	-0.50	–

Azeri Lt, CPC Blend & Sib Lt vs Dated



Ural differentials to North Sea Dated



Freight Rates		21 Dec
Black Sea-Mediterranean	**WS**	**$/t**
Crude 135,000*t*	258.0	24.61
Crude 80,000*t*	380.0	36.25
Primorsk to UKC		
Crude 100,000*t*	350.0	29.72
Mediterranean/Black Sea-Far East		
Crude 135,000*t* (lump sum)	6,950,000	51.48

DESTINATIONS

Russian gasoil destinations						'000t
	Nov	Oct	±%	Jan-Nov 22	Jan-Nov 21	±%
Turkey	566.0	513.7	13.9	4,353.1	3,699.0	18.0
Germany	445.0	381.3	20.6	4,392.1	4,208.6	4.0
France	440.8	410.9	10.9	5,500.1	6,334.4	-13.0
Netherlands	408.7	230.9	82.9	2,909.4	978.3	197.0
Belgium	398.5	172.6	138.6	2,411.6	787.4	206.0
Greece	258.1	294.9	-9.5	2,571.5	1,909.1	35.0
Poland	206.6	143.8	48.4	2,030.6	3,163.2	-36.0
Spain	137.9	58.4	144.1	1,034.2	1,412.5	-27.0
Romania	98.3	64.4	57.7	1,499.6	1,793.7	-16.0
Libya	95.7	66.8	48.1	264.7	135.5	95.0
Morocco	92.6	93.7	2.1	481.7	71.9	570.0
United Arab Emirates	86.3	44.0	102.4	712.4	52.2	1,264.0
Slovenia	72.9	30.2	149.4	810.0	315.4	157.0
Italy	71.7	164.2	-54.9	1,550.0	995.0	56.0
South Korea	56.1	121.6	-52.3	626.0	611.2	2.0
Indonesia	50.9	0.0	na	87.1	80.7	8.0
Tunisia	45.3	18.2	158.1	301.6	108.6	178.0
Senegal	45.1	49.9	-6.6	510.4	609.4	-16.0
Togo	42.9	15.2	191.1	153.7	110.2	39.0
Saudi Arabia	38.2	0.0	na	43.5	71.4	-39.0
Trinidad and Tobago	32.5	0.0	na	32.5	4.7	592.0
Lebanon	32.2	33.3	-0.1	162.1	547.9	-70.0
Brazil	31.3	0.0	na	148.7	131.0	13.0
Egypt	28.0	0.0	na	308.7	143.9	114.0
Singapore	25.7	37.0	-28.2	159.0	319.8	-50.0
Latvia	12.0	30.6	-59.6	461.7	31.7	1,358.0
United Kingdom	0.0	0.0	na	1,589.9	4,230.3	-62.0
United States	0.0	0.0	na	176.7	815.4	-78.0
Denmark	0.0	0.0	na	2.9	368.6	-99.0
Norway	0.0	0.0	na	142.0	309.9	-54.0
Lithuania	0.0	0.0	na	37.3	301.2	-88.0
Malaysia	0.0	71.2	-100.0	509.4	224.3	127.0
Panama	0.0	41.9	-100.0	139.7	173.0	-19.0
Finland	0.0	0.0	na	200.0	162.8	23.0
Ecuador	0.0	0.0	na	151.6	158.9	-5.0
Cameroon	0.0	0.0	na	44.5	157.9	-72.0
Estonia	0.0	0.0	na	9.7	126.0	-92.0
China	0.0	79.2	-100.0	354.9	121.0	193.0
Mauritania	0.0	0.0	na	16.3	103.0	-84.0
Ireland	0.0	0.0	na	22.2	100.3	-78.0
Iraq	0.0	0.0	na	59.0	97.2	-39.0
Iran	0.0	0.0	na	0.0	81.2	-100.0
Bahamas	0.0	0.0	na	0.0	69.4	-100.0
Albania	0.0	0.0	na	0.0	67.1	-100.0
Angola	0.0	0.0	na	0.0	41.5	-100.0
Yemen	0.0	24.8	-100.0	215.0	51.0	322.0
Georgia	0.0	0.0	na	0.0	47.8	-100.0
Sweden	0.0	0.0	na	0.0	47.4	-100.0
Guinea	0.0	0.0	na	0.0	40.7	-100.0
Bulgaria	0.0	0.0	na	61.4	38.6	59.0
Croatia	0.0	0.0	na	0.0	32.2	-100.0
Philippines	0.0	0.0	na	0.0	27.2	-100.0
Taiwan	0.0	0.0	na	0.0	22.9	-100.0
Oman	0.0	0.0	na	0.0	20.9	-100.0
Canada	0.0	0.0	na	8.9	19.9	-55.0
Republic of the Congo	0.0	0.0	na	0.0	19.5	-100.0
Benin	0.0	0.0	na	13.3	17.2	-22.0
Nigeria	0.0	0.0	na	31.9	15.4	107.0
Gambia	0.0	0.0	na	0.0	15.2	-100.0
Malta	0.0	0.0	na	57.0	15.0	279.0
Israel	0.0	5.6	-100.0	5.6	6.8	-19.0
Japan	0.0	0.0	na	0.0	4.6	-100.0
US Virgin Islands	0.0	0.0	na	0.0	3.2	-100.0
Argentina	0.0	0.0	na	62.7	0.0	na
Colombia	0.0	0.0	na	9.2	0.0	na
Cuba	0.0	0.0	na	161.1	0.0	na
Cyprus	0.0	0.0	na	9.1	0.0	na
Democratic Republic of the Congo	0.0	0.0	na	12.9	0.0	na
Ghana	0.0	40.2	-100.0	69.4	0.0	na
Ivory Coast	0.0	0.0	na	46.2	0.0	na
Jamaica	0.0	0.0	na	7.8	0.0	na
Mexico	0.0	0.0	na	25.0	0.0	na
Sierra Leone	0.0	0.0	na	3.8	0.0	na
Sri Lanka	0.0	0.0	na	101.0	0.0	na
Sudan	0.0	0.0	na	31.7	0.0	na

Changes based on daily average figures — *Vortexa*

DESTINATIONS

Russian fuel oil destinations						*'000t*
	Nov	Oct	±%	Jan-Nov 22	Jan-Nov 21	±%
India	542.8	652.6	-17.0	4,133.0	2,079.5	99.0
Singapore	483.2	540.2	-11.0	2,787.0	2,415.9	15.0
UAE	433.9	375.4	16.0	3,439.9	1,645.3	109.0
China	325.6	456.6	-29.0	2,249.7	1,104.3	104.0
Saudi Arabia	290.3	86.3	236.0	1,880.7	961.1	96.0
Malaysia	250.3	214.5	17.0	1,285.2	143.7	794.0
Egypt	236.6	337.2	-30.0	1,469.2	371.3	296.0
Turkey	177.8	253.8	-30.0	1,547.5	1,154.9	34.0
Greece	140.7	225.1	-38.0	1,476.9	803.5	84.0
UK	79.5	11.1	617.0	462.7	437.4	6.0
Latvia	67.8	107.1	-37.0	307.6	44.7	589.0
Caribbean Netherlands	41.8	38.2	9.0	123.7	247.4	-50.0
Estonia	35.2	27.9	26.0	1,028.5	1,789.0	-43.0
Israel	34.4	39.2	-12.0	271.0	122.5	121.0
Lithuania	30.9	0.0	na	30.9	-	na
Bangladesh	22.4	10.7	110.0	33.0	5.2	538.0
Guinea	11.7	0.0	na	23.9	-	na
Japan	4.6	0.0	na	7.0	0.7	873.0
South Korea	2.0	0.0	na	24.3	125.1	-81.0

Changes based on daily average figures — *Vortexa*

Russian VGO destinations						*'000t*
	Nov	Oct	±%	Jan-Nov 22	Jan-Nov 21	±%
Singapore	45.1	335.6	-86.1	978.5	169.9	475.9
China	55.3	177.9	-67.9	241.3	0.0	na
Italy	-	18.6	na	30.2	0.0	na
Morocco	-	17.4	na	81.9	0.0	na
Germany	10.3	11.7	-8.8	49.0	0.0	na
Indonesia	-	7.1	na	7.1	0.0	na
Israel	38.2	1.9	1,927.4	145.7	0.0	na
United States	-	-	na	343.9	1,780.0	-80.7
Turkey	-	-	na	144.5	385.7	-62.5
India	-	-	na	144.2	112.1	28.6
United Kingdom	-	-	na	96.6	0.0	na
Greece	-	-	na	86.3	110.5	-21.9
Croatia	-	-	na	61.6	55.9	10.2
Netherlands	-	-	na	52.0	100.3	-48.2
Guinea	-	-	na	35.8	0.0	na
Italy	-	-	na	30.2	236.5	-87.2
Portugal	-	-	na	29.3	22.7	29.1
Canada	-	-	na	15.8	0.0	na
Qatar	-	-	na	11.9	0.0	na
Saudi Arabia	43.8	0.0	na	51.3	15.6	228.8
Spain	-	-	na	1.9	84.7	-97.7
South Korea	-	-	na	-	32.4	na
Malta	-	-	na	-	4.1	na
UAE	-	-	na	-	8.7	na
France	-	-	na	-	16.9	na
Senegal	18.1	0.0	na	18.1	0.0	na
Sierra Leone	6.1	0.0	na	6.1	0.0	na
Georgia	-	-	na	-	29.7	na
Malaysia	-	-	na	-	21.7	na
South Korea	-	-	na	-	32.4	na

Changes based on daily average figures — *Vortexa*

KAZAKH PRODUCTION

Crude and condensate production, Nov				'000t
	Nov	±% Oct	2022	±% 2021
Total	**7,758.66**	**22**	**76,212.66**	**-2**
Tengizchevroil	2,591.03	8	26,587.10	11
North Caspian Operating Company	1,524.61	95	10,984.64	-25
Karachaganak Petroleum Operating	1,056.89	89	10,164.79	-3
Mangistaumunaigaz	515.48	-1	5,566.87	4
Uzenmunaigaz	422.13	-3	4,675.00	-4
CNPC-Aktobemunaigaz	232.60	-1	2,625.25	-7
Embamunaigaz	215.38	1	2,356.73	3
Karazhanbasmunai	178.92	0	1,961.14	2
Kazgermunai	102.62	-1	1,195.95	-11
Buzachi	92.48	1	988.20	2
Kaspii Oil	75.00	-1	841.50	-1
Total e&p Kazakhstan	53.34	-3	574.32	0
Petrokazakhstan Kumkol Resources	49.28	-3	525.38	-13
Kazakhoil Aktobe	45.45	-2	516.16	-5
Kozhan	44.08	0	509.54	-11
Kolzhan	43.06	1	484.22	12
Kazakhturkmunai	37.48	0	398.68	1
KMK Munai	33.28	-3	360.21	3
South-Oil	30.12	0	346.62	-13
Ken-Sary	25.45	-4	278.56	8
Kazpetrol group	23.82	1	294.83	-2
Maten Petroleum	22.57	0	260.22	-8
Buzachi neft	22.52	8	212.09	13
Turgai Petroleum	21.78	-2	254.97	-13
Alties Petroleum	21.29	-5	231.02	-16
Zhaikmunai	20.75	0	245.23	-17
Karakudukmunai	17.05	1	183.77	-5
Sagiz Petroleum	16.26	2	178.10	5
Kumkol Trans Servis	14.38	-1	155.66	-20
Kul-Bas	14.03	-13	141.39	202
Emir Oil	11.72	18	91.53	9
Kor	11.53	-2	130.34	-5
Kom-Munai	11.47	3	119.01	-1
IC Petroleum	11.29	1	43.85	na
Kuatamlonmunai	11.25	-2	127.83	-14
5A Oil	11.05	-9	132.49	39
Ada Oil	10.07	1	115.10	-6
BNG Ltd	9.58	-1	105.96	59
Tasbulat oil	8.09	2	93.87	-8
NOBILIS CORP	7.68	15	14.58	na
Potencial Oil	7.12	0	76.94	-3
Anako	7.00	2	75.80	-6
Evrika Oleum	6.96	4	51.11	2
Meerbusch	6.95	-5	85.22	-3
Aidan Munai	6.49	-2	66.44	-9
Tenge	5.92	-6	59.17	-28
Galaz and Company	5.48	13	47.21	98
Altay Resources	4.30	-13	37.28	68
Phystech 2 (PHYS)	3.84	-3	41.64	-6
Urihtau Operating	3.62	10	39.56	14
Sazankurak	3.17	0	32.38	-19
Zhalgiztobemunai	2.97	1	34.58	-6
Arman	2.70	-3	34.64	-21
Kan Ai Oil Kyzylorda	1.69	-23	19.61	33
Munaily Meken	1.64	-3	20.35	38
Tobearal Oil	1.50	0	17.30	23
Ap-Naphtha Operating	1.38	-11	14.73	2
Razvedka and dobycha QazaqGas	1.29	-3	2.67	na
Kaspiy Neft TME	1.25	2	16.26	8
Svetland-oil	1.14	-6	13.65	11
Linesjump	1.12	11	12.58	13
Sunrise Energy Kazakhstan	1.08	53	14.52	-20
Embavedoil	1.08	4	11.42	-10
Oloreso Petroleum	1.04	-10	14.14	-12
Asker Munai	1.00	0	9.13	-6
Oil Reloading Corp	0.92	-14	12.55	10
Jupiter Energy	0.92	9	10.08	-33
Aktau-Transit	0.91	0	10.88	-13
Aral Petroleum	0.86	-5	9.14	-11
Green production	0.85	-9	12.58	-8
Kumkol Oil	0.85	-8	4.19	na
Prikaspian Petroleum	0.76	1	7.48	15
Atyraumunai	0.74	-8	8.33	20
Tabynai	0.66	-1	7.37	10
KhamAd Partners	0.51	-65	2.00	na
Nedra Kom	0.46	-10	8.30	714
Ushkuyu	0.46	36	6.25	-20
VARRO OPERATING GROUP	0.45	-21	1.04	na
ICP Munai	0.33	na	1.85	-46
Embamunai	0.21	-1	2.36	-3
Tarbagatai Munai	0.08	-88	0.78	53
Lucent petroleum	0.07	-62	0.26	na
Crystal Management	0.03	3	12.09	-54

Comparisons are based on average daily production

KAZAKH PRODUCTION

Natural gas production, Nov				*mn m³*
	Nov	±% Oct	2022	±% 2021
Total	**4,987.11**	**40**	**47,999.82**	**-1**
Karachaganak Petroleum Operating	1,805.00	105	17,499.90	2
Tengizchevroil	1,410.76	8	14,735.15	11
North Caspian Operating Company	958.70	75	6,820.26	-24
CNPC-Aktobemunaigaz	352.13	-2	3,881.07	-1
Mangistaumunaigaz	73.79	1	781.83	15
Kazakhoil Aktobe	70.94	0	785.95	5
KazAzot	65.06	-1	734.18	-10
Uzenmunaigaz	55.34	3	570.21	-6
Zhaikmunai	26.83	-4	350.53	-27
Razvedka and dobycha QazaqGas	24.45	-4	50.87	na
Kazgermunai	18.84	3	211.78	-39
Embamunaigaz	16.53	2	196.41	8
Kazakhturkmunai	15.80	2	181.29	22
Petrokazakhstan Kumkol Resources	15.78	15	172.81	16
Tarbagatai Munai	14.64	5	83.98	-52
Karazhanbasmunai	5.74	0	61.92	11
TesisAralGas	5.46	1	78.13	-27
Buzachi	5.21	18	53.75	-1
South-Oil	3.96	2	45.30	-10
Total e&p Kazakhstan	3.95	-7	46.71	-1
Ken-Sary	3.78	-2	42.20	-1
Emir Oil	3.68	2	41.28	23
Karakudukmunai	2.92	5	29.30	2
VARRO OPERATING GROUP	2.35	54	3.93	na
Kolzhan	2.22	6	22.57	2
Turgai Petroleum	2.00	-3	25.75	-12
Urihtau Operating	1.88	12	19.29	-17
Kuatamlonmunai	1.76	-1	20.47	-19
Kom-Munai	1.66	1	15.67	-13
Kaspii Oil	1.34	-5	16.97	-15
Kozhan	1.32	0	14.68	-16
Tenge	1.28	-5	11.92	20
Buzachi neft	1.01	3	9.29	76
Kumkol Trans Servis	1.00	5	11.13	-25
NOBILIS CORP	0.99	176	1.36	na
Kul-Bas	0.88	-20	11.09	560
KMK Munai	0.78	-2	8.54	1
Kazpetrol group	0.73	-1	9.49	14
Tasbulat oil	0.72	9	23.37	-31
Aidan Munai	0.64	3	6.96	-24
Altay Resources	0.57	-12	4.95	24
Sagiz Petroleum	0.53	10	7.39	9
Galaz and Company	0.48	10	4.26	96
5A Oil	0.47	-1	5.01	18
Maten Petroleum	0.44	-1	5.15	-21
Meerbusch	0.42	17	4.74	-6
Evrika Oleum	0.30	7	1.90	-26
Kaspiy Neft TME	0.24	-14	3.08	-30
Arman	0.24	-8	3.13	-23
Potencial Oil	0.22	3	2.29	-2
Aral Petroleum	0.19	-7	1.96	-8
Ada Oil	0.16	-3	2.20	-24
Alties Petroleum	0.15	-3	1.88	-10
Jupiter Energy	0.14	3	1.57	-32
Kan Ai Oil Kyzylorda	0.14	-20	1.45	28
Asker Munai	0.13	-4	1.26	13
Anako	0.09	-7	1.06	-17
BNG Ltd	0.08	3	0.77	7
Green production	0.05	-14	0.73	20
Sazankurak	0.04	3	0.41	-13
Kumkol Oil	0.03	-23	0.14	na
Ap-Naphtha Operating	0.03	-23	0.34	-3
KhamAd Partners	0.02	-70	0.09	na
Tabynai	0.02	3	0.22	na
Prikaspian Petroleum	0.02	3	0.23	-76
Lucent petroleum	0.02	-94	0.38	na
Ushkuyu	0.02	na	0.18	-38
Phystech 2 (PHYS)	0.02	3	0.22	0

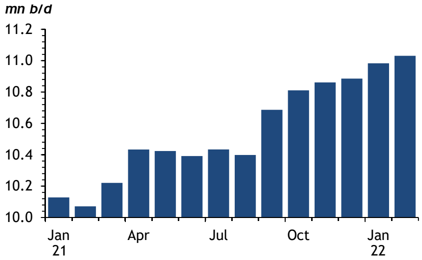
Comparisons are based on average daily production

NETBACKS

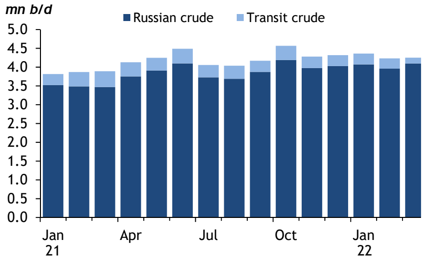
Russian crude netbacks ($/bl)				21 Dec
	Primorsk	Ust-Luga	Novorossiysk (Urals)	Novorossiysk (Sib Light)
fob oil price	**41.93**	**41.93**	**39.93**	**60.59**
Port transshipment	0.34	0.38	0.45	0.43
Export duty	6.04	5.99	6.02	5.85
Nizhnevartovsk				
Tariff through Russia	5.00	4.82	4.78	4.33
Netback to Nizhnevartovsk	30.55	30.74	28.68	49.98
Domestic market price, ex-VAT	42.05	42.05	42.05	42.05
Export margin	**-11.50**	**-11.31**	**-13.37**	**7.93**
Samara				
Tariff through Russia	–	2.44	2.35	–
Netback to Samara	–	33.12	31.11	–
Domestic market price, ex-VAT	–	37.42	37.42	–
Export margin	**–**	**-4.30**	**-6.31**	**–**

**includes freight, sea cargo insurance, demurrage and navigation fees*

Russian oil production



Russian pipeline crude exports



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